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To: Gary Bustamente
Gypsy Moth Coordinator for the Monongahela National Forest

From: Dave Curry
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Subject; Completion of Gypsy Moth Egg Mass Surveys for Fall 1997

Gypsy Moth Egg Mass surveys for fall 1997 were recently completed. Random 1/40th acre surveys were employed to arrive at the population levels. Fifteen to 20 survey sites were scattered throughout each timber compartment, but concentrated more towards the good GM habitat (oak). Occasionally, 2 or more small compartments were combined to allow the surveyor to cover more area.

A finding of 12 or more Egg Masses on a survey site would be equivalent to 500 EM/acre, or the point where tree defoliation first begins to be noticeable. An <u>average</u> of 12 EM or more over a compartment or recreation area, would ring bells of concern.

For fall 1997, no bells are ringing. Of 94 compartments surveyed, none averaged over 12 EM/site or 500EM/ac. In fact, out of 1600 individual surveys, not one site yielded as many as 12 EM. Because of this, there will not likely be any GM caused defoliation in any of the surveyed areas in July 1998.

The reason for this bright forecast is the fungus, Entomo--phaga sp., which endeavored to wipe out the GM larvae in summer 1996 and nearly succeeded.

Is it possible to see the GM beyond summer 1998 by looking at the assembled survey information? Maybe. A different perspective yields some interesting numbers.

By looking at positive surveys, or any site yielding one or more EM, we can see a large increase in the overall GM population compared to Fall 1996. For instance, one surveyor found only

two positive sites in fall 1996 out of nearly 600 surveys done mostly on Marlinton and Greenbrier districts. In fall 1997, out of a similar number of surveys conducted in approxiamately the same area by the same surveyor, over 30 positive sites were found. This indicates a fifteen fold increase over the year before. On a much smaller scale, a permanent band site in Green Bank had 2 EM in 1996 and 12 EM in 1997, for a 6 fold increase.

Granted, EM at the one (or a few) level are not significant or indicative of a serious GM problem. However, there does appear to be strong growth in the GM population. Continued quick growth should be expected since predator populations have declined. For example, no Ooencyrtus sp.(egg parasites) were observed in 1997.

Recreation Areas

Most developed recreation areas of the MNF were surveyed. All were found to be relatively clean of GM except for Spruce Knob Campground.

SKC had a population of slightly less than 100EM/ac. Again, this is not a significant number and does not meet the criteria for intervention(+250/ac). However, larvae could be an annoyance to campers in June and July, and SKC could also become a GM distribution center to the rest of the MNF. Because of that, a low tech intervention with dormant oil spray would seem reasonable.

Summary

Page 3 contains a list of surveyed timber compartments by Ranger District. Each compartment had 15 to 20 surveys. Positive survey site, if found, will be listed next to the compartment identification number.

Most positive sites were found between Frost and Minnehaha along the WV/VA line. None were found south of Rt.39 nor west of Rt.219 at Marlinton.

Cheat Ranger District

6,12(+),13,16(+),17(+),18,19,20,27(2+),28(+),29,30,31(3+),
32(+),35(+),37(2+),44,47(+),49(3+),50(+),52,57.

22 compartments

Greenbrier Ranger District

2,4(4+),5,6,8,10,12(+),13,14(+),67,89(+),90(+),91,93(+),95(+),
98,99(2+)108/9,110(3+),116(+),113,119(4+).

22 compartments

Marlinton Ranger District

12/69,31(+),35,39,40,43,51,53,55,57(2+),58(2+),60(2+)
61(+),63,64(2+).

15 compartments

Potomac Ranger District

15,16,17,19,20,24,25,26,35,36,37,41,55,56(+),59,60,62,66,
67,83,84,86(+),87,88,89,91(+),95.

27 compartments

White Sulphur Ranger District

29,51,59,66,79/81,82/84.

6 compartments

Gauley Ranger District

69 or Fork Mt, Wms River

2 compartments

Recreation Areas

Stuarts Park, Horseshoe Run, Seneca Shadow, Spruce Knob CG
Old House, Island Run, Tea Creek, Sherwood, Bluebend.